

CLAIMS

1. Process for the detection in vitro of the presence of a pathology in a subject, comprising (i) the preparation of nucleic acids from a sample of blood cells from said subject and (ii) the hybridization of the nucleic acids so prepared with at least one nucleic acid library comprising nucleic acids specific for splicing forms of genes characteristic of a blood cell in a pathological situation, the hybridization profile indicating the presence of blood cells in the sample characteristic of the pathology.
 2. Process according to claim 1, wherein the library further comprises nucleic acids specific for genes whose level of expression is modified in a blood cell in a pathological situation.
 3. Process according to any one of claims 1 or 2, wherein the library or libraries are deposited on a support.
 4. Process according to any one of claims 1 to 3, wherein the nucleic acids prepared from the sample are total or messenger RNA, optionally amplified, or cDNA derived therefrom.
 5. Process according to claim 4, wherein the nucleic acids are labelled.
 6. Process according to any one of the preceding claims, wherein the blood cells are nucleated cells.
 7. Process according to claim 6, wherein the nucleated blood cells comprise lymphocytes, macrophages, monocytes and/or dendritic cells.
 8. Process according to any one of the preceding claims, for the detection in vitro of the stage of progression of a pathology in a subject.

9. Process according to any one of the preceding claims, for the detection in vitro of the site of a pathology in a subject.
10. Process according to any one of the preceding claims, for the detection in vitro of the presence, the stage of progression and/or the site of a neurodegenerative disorder.
11. Process according to any one of claims 1 to 9, for the detection in vitro of the presence, the stage of progression and/or the site of a cancerous pathology.
12. Process of detection in vitro of blood cells characteristic of a pathological state, comprising (i) the preparation of nucleic acids from a sample of blood cells from a subject and (ii) the hybridization of the nucleic acids so prepared with at least one nucleic acid library comprising nucleic acids specific for splicing forms of genes characteristic of a blood cell in a pathological situation, the hybridization profile indicating the presence of blood cells in the sample characteristic of the pathology.
13. Process of preparation of a nucleic acid library characteristic of a pathological state, wherein said process comprises (i) obtaining an initial nucleic acid preparation from a blood cell isolated from an organism presenting a pathology, (ii) obtaining a reference nucleic acid preparation from a blood cell isolated from an organism not presenting said pathology, (iii) a hybridization step between said first preparation and the reference preparation, and recovering nucleic acids characteristic of the blood cell from the organism in a pathological situation.
14. Process of preparation of a library of nucleic acids characteristic of the stage of progression of a pathology, characterized in that it comprises (i) obtaining an initial nucleic acid preparation from a blood cell isolated from an organism presenting a pathology at a defined stage of progression, (ii) obtaining a reference nucleic acid preparation from a blood cell isolated from an organism presenting said pathology at a different stage of progression, (iii) a hybridization step between said first preparation and the reference

preparation, and (iv) the recovery of nucleic acids characteristic of the blood cell from the organism at a defined stage of progression of the pathology.

15. Process according to claim 13 or 14, characterized in that it comprises the recovery of clones of non-hybridized nucleic acids.

16. Process according to claim 13 or 14, characterized in that it comprises the recovery, from the hybrids formed, of nucleic acid clones specific for splicing forms of genes.

17. Process according to any one of claims 13 to 16, wherein the library is deposited on a support.

18. Nucleic acid preparation, wherein said preparation comprises nucleic acids specific for genes whose level of expression is modified in a blood cell from an organism in a pathological situation.

19. Nucleic acid preparation, wherein said preparation comprises nucleic acids specific for splicing forms of genes characteristic of a blood cell from an organism in a pathological situation.

20. Kit usable for the implementation of a process according to any one of claims 1 to 12, comprising a nucleic acid library comprising nucleic acids specific for splicing forms of genes characteristic of blood cells from an organism in a pathological situation.

21. Process for the detection in vitro of the presence of a neurodegenerative disease or of a cancer in a subject, comprising (i) the preparation of proteins from a sample of blood cells from said subject and, (ii) the determination of the presence, in said preparation (i), of a protein or protein domain characteristic of said disease, said presence indicating the presence of a neurodegenerative disease or a cancer.